

CLAIMS

What is claimed is:

- 1 1. A post print finishing device, comprising:
 - 2 a vertically oriented frame;
 - 3 a first output bin mounted to the frame;
 - 4 a sheet flipper mounted to the frame adjacent to the first output bin,
 - 5 the flipper having a receiving port through which a sheet is received into the
 - 6 flipper, a discharge port opposite the receiving port and adjacent to the first
 - 7 output bin through which a sheet is discharged to the first output bin, and a
 - 8 routing port through which a sheet is routed for further processing, the
 - 9 flipper configured to receive a sheet from a printing device and either
 - 10 discharge the sheet leading edge first to the first output bin or route the
 - 11 sheet trailing edge first through the routing port;
 - 12 a second output bin mounted to the frame below the first output bin;
 - 13 a sheet accumulator mounted to the frame below the flipper and
 - 14 adjacent to the second output bin, the accumulator having a receiving port
 - 15 through which sheets routed through the flipper routing port are received into
 - 16 the accumulator, a discharge port through which a stack of sheets is
 - 17 discharged to the second output bin, and a binding port through which a
 - 18 stack of sheets is moved for binding, the accumulator configured to
 - 19 accumulate sheets in a stack, move the stack back and forth through the
 - 20 binding port and discharge the stack to the second output bin through the
 - 21 discharge port; and
 - 22 a binder mounted to the frame, the binder having a pair of heated
 - 23 platens disposed opposite one another adjacent to the accumulator binding
 - 24 port, the platens movable between a first open position in which an edge of
 - 25 the stack of sheets in the accumulator may be inserted between the platens
 - 26 or withdrawn from between the platens and a second compressed positioned
 - 27 in which heat and pressure are applied to the edge of the stack.

1 2. The device of Claim 1, further comprising a media sheet path
2 mounted to the frame between the flipper and the accumulator, the path
3 having a receiving port adjacent to the flipper routing port for receiving a
4 sheet into the path and a discharge port adjacent to the accumulator
5 receiving port through which a sheet is discharged to the accumulator, the
6 path configured to receive a sheet from the flipper and transport the sheet to
7 the accumulator.

1 3. A post print finishing device, comprising:
2 a flipper module;
3 an accumulator module downstream in a media path from the flipper
4 module;
5 a binder module operatively coupled to the accumulator module, the
6 binder module operative to bind sheets in a stack by reactivating imaging
7 material applied to sheets in the stack;
8 an output bin downstream in the media path from the accumulator
9 module; and
10 the flipper module operative to receive a sheet leading edge first and
11 discharge the sheet trailing edge first and the accumulator module operative
12 to stack sheets discharged from the flipper module, present the stack to the
13 binder module for binding and discharge the bound stack to the output bin.

1 4. A post print finishing device, comprising:
2 a support structure having a base and uprights extending vertically
3 from the base;
4 a first output bin mounted to the uprights;
5 a second output bin mounted to the uprights below the first output
6 bin;
7 a first module mounted to the uprights adjacent to the first output bin;
8 a second module mounted to the uprights below the first module;
9 a third module mounted to the uprights below the second module and
10 adjacent to the second output bin;

11 the first module having a first media path through which media sheets
12 are output to the first output bin and a second media path through which
13 media sheets are output to the second module;
14 the second module having a third media path through which media
15 sheets are received from the first module, stacked, presented to the third
16 module and output to the second output bin; and
17 the third module having a binder comprising a platen and a press
18 coupled to the platen, the platen movable at the urging of the press between a
19 first position in which the platen is separated from media sheets presented by
20 the second module and a second position in which the platen compresses the
21 media sheets.

1 5. The device of Claim 4, further comprising a fourth module
2 mounted to the uprights between the first and second modules, the fourth
3 module having a fourth media path through which media sheets are received
4 from the first module and output to the second module.

1 6. The device of Claim 4, wherein the platen comprises a heated
2 platen that compresses and heats the media sheets when the platen is in the
3 second position..

1 7. The device of Claim 4, wherein the platen comprises a pair of
2 heated platens that compress and heat the media sheets when the platens
3 are in the second position.

1 8. A document production system, comprising:
2 a printing device;
3 a post print finishing device operatively connected to the printing
4 device, the finishing device comprising
5 a flipper module,
6 an accumulator module downstream in a media path from the flipper
7 module,

8 a binder module operatively coupled to the accumulator module, the
9 binder module operative to bind sheets in a stack by reactivating imaging
10 material applied to sheets in the stack,
11 an output bin downstream in the media path from the accumulator
12 module, and
13 the flipper module operative to receive a sheet leading edge first and
14 discharge the sheet trailing edge and the accumulator module operative to
15 stack sheets discharged from the flipper module, present the stack to the
16 binder module for binding and discharge the bound stack to the output bin.